

APPENDIX C

Principles and Practices for a Federal Statistical Agency: How BTS Compares

The Committee on National Statistics (CNSTAT) in *Principles and Practices for a Federal Statistical Agency* (NRC, 1992b) listed a series of issues that it considered important for the proper functioning of a statistical agency. The following list includes a series of points culled from that report with a review of their application to the Bureau of Transportation Statistics (BTS). The boldface type in this appendix is based on excerpts from the text in the CNSTAT publication. Each excerpt of a principle or practice is followed, in regular type, by a brief evaluation of its application to BTS. The excerpts are sometimes shortened, rephrased, or grouped together for clarity.

A. A federal statistical agency is a unit of the federal government whose principal function is the compilation and analysis of data and the dissemination of information for statistical purposes. The unit must be generally recognized as a distinct entity. It may be located within a cabinet department or an independent agency.

The mission for BTS—to compile, analyze, and disseminate information—was established by the 1991 ISTEA legislation. BTS has begun two major multimodal surveys, produced several analytical reports, and developed computerized approaches to dissemination of data on transportation. BTS is a separate agency within the U.S. Department of Transportation (USDOT) with a director reporting directly to the secretary of transportation.

B. A federal statistical agency must be in a position to provide information relevant to issues of public policy.

BTS provides some information to support transportation policy making, and the BTS director provides information analysis for the secretary of transportation.

However, BTS has not yet developed a long-range plan for data needed for transportation policy, nor has it developed a set of indicators of the transportation system and its problems. BTS has taken steps to develop needed new data. It has not yet played a vigorous role in the coordination of transportation data collection within its own department or within the federal statistical community.

C. A federal statistical agency must have a relationship of mutual respect and trust with those who use its data and information.

BTS provides services to users of transportation data, especially by bringing together data from many sources and putting them into more accessible form. However, as a statistical agency, BTS does not yet have a well-developed program to inform its users about the quality of the data it makes accessible to them.

D. A federal statistical agency must have a relationship of mutual respect and trust with respondents who provide data and with all data subjects whose information it obtains.

The two major surveys begun by BTS—the American Travel Survey and the Commodity Flow Survey—are conducted for it by the Bureau of the Census. The surveys are carried out in accordance with Census Bureau procedures for treating respondents and on maintaining the confidentiality of the data collected. The 1991 ISTEA legislation provides legislative authority for the protection of the confidentiality of data collected by BTS. Recently, however, the compilation and publication of airline and motor carrier information was transferred to BTS; these programs require publication of the data collected identified by name of the responding organization. The airline data are also used for some regulatory purposes.

E. An agency's mission should include responsibility for assessing needs for information and determining sources of data, measurement methods, and efficient methods of collection and ensuring the public availability of needed data, including, if necessary, the establishment of a data collection program.

BTS has moved forward rapidly to contract with the Census Bureau to implement the Commodity Flow Survey and the American Travel Survey, which provide intermodal data that have not been available for over 15 years. BTS has also worked with the American Association of State Highway and Transportation Officials, the American Association of Metropolitan Planning Organizations, and the Transportation Research Board to help states and localities assess data needs and to understand the data that are already available. In general, BTS has thus far focused more attention on the dissemination of data that are available than on the identification of data gaps and programs to fill them.

F. A statistical agency must have independence mandated in organic legislation or encouraged by organizational structure. In essence, a statistical agency must be distinct from the enforcement and policy-making activities carried out by the department in which the agency is located. The independence of the agency head must be understood. The statistical agency must have broad authority over scope, content, and frequency of data collected, compiled, or published.

The director of BTS is appointed by the president with the consent of the Senate. The director has a fixed 4-year term of office and does not serve at the pleasure of the president. BTS functions as a separate agency within USDOT. BTS has broad authority over its publications and other programs. It does not have authority over the statistical programs located in other parts of the department. However, it is clear that the 1991 ISTEA envisioned BTS as providing leadership throughout USDOT and the entire statistical system on transportation issues. BTS has not yet made an attempt to establish guidelines for data quality and definitions for use throughout USDOT.

G. A statistical agency should have primary authority for selection and promotion of professional staff.

Although, like other executive branch agencies, BTS is affected by general staffing rules and limitations, BTS controls the selection and promotion of its employees. With the exception of the director who is a presidential appointee, all BTS personnel are career civil servants.

H. It is important that the agency head be recognized as professionally qualified and have direct access to the secretary of the department in which the agency is located.

The 1991 ISTEA requires that the director of BTS be professionally qualified for the position. Since BTS has the status of a USDOT modal administration, its director has direct access to the secretary of transportation. The first director, T.R. Lakshmanan, is well regarded in transportation and academic circles and provides objective, apolitical advice to the secretary of transportation.

I. The agency should be recognized by policy officials outside the statistical agency for its authority to release statistical information without prior clearance.

BTS has followed a policy of releasing data without prior clearance from USDOT officials.

J. The statistical agency head and qualified staff should be able to speak on the agency's statistical program before Congress.

BTS has this authority, and its director has testified before the Congress on transportation statistics. BTS is, of course, subject to the same rules as for all executive branch agencies of having prior clearance by the Office of Management and Budget of prepared congressional testimony.

K. There should be a clear distinction between the release of statistical information and the policy interpretations of such statements by the secretary of the department, the president, or others. It is also useful for the agency to adhere to predetermined schedules in public release of important economic or other indicator data to prevent manipulation of release dates for political purposes.

BTS has a clear understanding of the need to maintain the objectivity of its data and has endeavored to keep the distinction between statistical information and policy prescription. The director has paid a great deal of attention to the

separation between objective data and political policy and has made sure that the BTS does not involve itself in policy determination. BTS does not yet have a program of key transportation indicators released on a regular basis.

L. To maintain credibility and a relationship of respect and trust with data providers and users, an agency must observe fair information practices, including maintaining the confidentiality of individual responses and seeking the cooperation of data providers and users through consultation.

BTS has legislation to protect the confidentiality of data provided by individuals and businesses and, in the data collected by the Bureau of the Census, uses Census Bureau rules on this issue. As indicated above, the nature of airline and motor carrier information identified by respondent poses special problems and is inconsistent with the principle of statistical confidentiality necessary to maintain survey response rates and a statistical agency's reputation for objectivity.

BTS has successfully developed several mechanisms for obtaining user input on data products, including a customer survey and e-mail response capability on its World Wide Web site. It has worked with the states and with other users of transportation data. BTS also has an advisory committee that meets twice a year to review its program as a whole. BTS has no systematic means of input on data concepts, priorities, and methods.

M. A statistical agency should exercise care to make its data equally accessible to all potential users.

BTS has made it a priority to provide access to its own data and transportation data from other sources to the widest possible audience through the World Wide Web and other media. BTS treats all users on an equal basis.

N. An agency should fully describe its data and comment on their relevance to specific major uses. It should describe the methods used, the assumptions made, the limitations of the data, the manners by which data linkages are made, and the results of research on the methods and data.

The American Travel Survey and the Commodity Flow Survey, collected for BTS by the Bureau of the Census, follow Census Bureau standards for publication of sampling error and information on survey design. The analyses included in the *Transportation Statistics Annual Reports* published by BTS refer to the data on which the analysis is based in ways that may be useful to readers. Otherwise, BTS has emphasized gathering data from many sources and making them available in machine-readable format. The agency has devoted little attention to documentation of quality and limitations of data on its web site. BTS has few staff devoted to methodological research.

O. A statistical agency should develop strong staff expertise in the disciplines relevant to its mission as well as in the theory and practice of statistics. Measures of uncertainty should be provided to users, and statistical standards should be published to guide professionals in the agency as well as external users.

Although BTS has staff experienced in analysis of transportation data, it has

relatively few people on its staff with statistical expertise. As a consequence, except for the two surveys mentioned above, BTS has done little with regard to evaluation and documentation of the data it publishes and makes available on the Internet. Except for the American Travel Survey and the Commodity Flow Survey, BTS provides only limited information on sources of error for the data in its own publications. BTS has done little thus far to develop standards of good statistical practice for its own use or for use by other units of USDOT.

P. An agency should develop a strong and continuous relationship with appropriate professional statistical organizations. It should have a research program that is integral to its activities.

BTS has a series of regular technical seminars for its own staff that are also open to others in USDOT. The seminars provide an opportunity for discussion of scientific research on a continuing basis with outside researchers in the field of transportation. In addition, BTS has sponsored conferences with papers prepared by scholars in this country and abroad on issues important for an understanding of transportation problems. BTS has initiated a new journal that will include peer-reviewed papers on topics in transportation, including research methods. BTS has an advisory committee made up of people knowledgeable about transportation issues and statistical policy. BTS has not yet developed strong relationships with such associations as the American Statistical Association, nor has it conducted methodological research.

Q. A statistical agency must recruit and retain a professional staff of high caliber—both statisticians and analysts in fields relevant to its mission. Personnel policies should encourage staff to maintain and extend their capabilities through appropriate professional activities.

BTS has a capable staff knowledgeable in the field of transportation. The agency augments this staff when necessary through contracting arrangements to obtain the services of people with needed skills. The agency is young and still quite small, however, and has thus far very few on its staff with strong statistical expertise. As indicated above, its seminar program and new journal should provide a means for intellectual discussion and professional interaction and development for its staff.

R. An agency should release information identified with a specific organization or entity for a nonstatistical purpose only when such release would not conflict with the agency's mission.

The Office of Airline Information within BTS releases identifiable information in accordance with the *Code of Federal Regulations*. In addition, the Motor Carrier Statistics Program, recently transferred to BTS, identifies individual carriers. Both sets of data products may be used for nonstatistical purposes. The remainder of the BTS activities are for statistical purposes only.

S. Data sharing and statistical uses of administrative records make a

statistical agency more effective as well as efficient. An effective statistical agency promotes data linkages.

BTS has initiated work with the Bureau of Economic Analysis to develop a transportation satellite account as part of the National Income and Product Accounts. BTS has a good record of working with agencies, both inside and outside USDOT, to provide useful transportation data, but it has not yet promoted data linkages with the surveys of other agencies in the federal statistical system.

T. Federal statistical agencies should cooperate with state and local agencies in the provision of data for subnational areas. Agencies should cooperate also with foreign and international statistical agencies to exchange information, on both data and methods, and to develop common classifications and procedures.

Several of the USDOT modal administrations have long-established programs of federal-state-local data collection. BTS has made an effort to find ways to assist states and localities to obtain and use data more effectively. BTS has also begun development of relationships with foreign and international agencies.